

embodiments but includes modifications that are obvious to the skilled man and are comprised in the scope of the invention as defined in the appended claims. For example, it is obvious that different embodiments of clips can be designed. Modifications of the suturing means are possible in numerous ways without extending beyond the spirit of the invention.

What is claimed is:

1. A device for treatment of atrioventricular regurgitation in a heart, comprising

a suturing means having such dimensions as to be introducible, via blood vessels leading to the heart, to two leaflets of an atrioventricular valve between an atrium and a corresponding ventricle of the heart and being capable of binding together the two leaflets in a position along the free edges of the leaflets, whereby the closing of the atrioventricular valve is improved,

said suturing means being transitional between two states, being open in a first state and substantially closed in a second state, and

said suturing means being biased towards its second state.

2. The device according to claim 1, wherein the suturing means comprises a clip.

3. The device according to claim 2, wherein the clip has two arms pivotally connected to each other at a first end thereof, the arms forming a V in the first state of the clip and being substantially parallel in the second state of the clip.

4. The device according to claim 3, wherein the two pairs of arms of the clip are connected to each other by two crossbars near the connected first ends of the arms.

5. The device according to claim 3, further comprising a catheter for introduction of the clip via the blood vessels to the heart, said catheter having an outermost sheet covering the clip and being retractable: therefrom.

6. The device according to claim 5, wherein the catheter has a rod for holding the clip substantially in the open state within the outermost sheet and an applicator for pushing the clip off the rod for transition thereof into the closed state when the outermost sheet is retracted from the clip.

7. The device according to claim 6, wherein the rod holds the free ends of the arms of the clip distal to the connected ends thereof during the introduction via the blood vessels.

8. The device according to claim 5, wherein the catheter has a rod for holding the clip substantially in the open state within the outermost sheet, said rod also having a puncturing means at a distal tip thereof.

9. The device according to claim 8, wherein the rod holds the connected ends of the arms of the clip distal to the free ends thereof during the introduction via the blood vessels.

10. The device according to claim 3, wherein the arms have second, free ends bent towards each other.

11. The device according to claim 10, wherein the second end of each one of the arms is sharp.

12. The device according to claim 1, wherein the suturing means consists of a memory material biasing the suturing means towards its second, closed state.

13. A device for the treatment of atrioventricular regurgitation in a heart, comprising

a suturing means having such dimensions as to be introducible, via blood vessels leading to the heart, to two leaflets of an atrioventricular valve between an atrium and a corresponding ventricle of the heart and being designed for binding together the two leaflets in a position along the free edges of the leaflets, whereby the closing of the atrioventricular valve is improved,

wherein the suturing means is transitional between two states, being open in a first state and substantially closed in a second state,

wherein the suturing means comprises a clip,

wherein the clip has two arms pivotally connected to each other at a first end thereof, the arms forming a V in the first state of the clip and being substantially parallel in the second state of the clip, and

wherein the two pairs of arms of the clip are connected to each other by two crossbars near the connected first ends of the arms.

14. A device for the treatment of atrioventricular regurgitation in a heart, comprising a suturing means having such dimensions as to be introducible, via blood vessels leading to the heart, to two leaflets of an atrioventricular valve between an atrium and a corresponding ventricle of the heart and being designed for binding together the two leaflets in a position along the free edges of the leaflets, whereby the closing of the atrioventricular valve is improved,

wherein the suturing means is transitional between two states, being open in a first state and substantially closed in a second state,

wherein the suturing means comprises a clip, and

further comprising a catheter for introduction of the clip via the blood vessels to the heart, said catheter having an outermost sheet covering the clip and being retractable therefrom.

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